## ABSTRACT OF THE DISCLOSURE

A multi-channel densitometer has a light sensor for each channel. The channels may be on a single circuit board, or may be on small, independently locatable probes. The outputs from the sensors are input to a single conveniently located controller circuit. The controller circuit provides power and control signals to the sensors, and processes the sensor outputs to obtain sample optical density. The multi-channel configuration saves space where the density measurements are needed, reduces the component count and cost, and facilitates calculation of multi-channel density functions, such as uniformity, transfer efficiency and color balance.